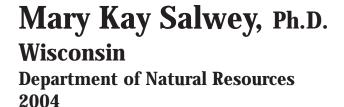
# **Learning** to Hunt

Hosting a huntingbased outdoor skills

event in your community









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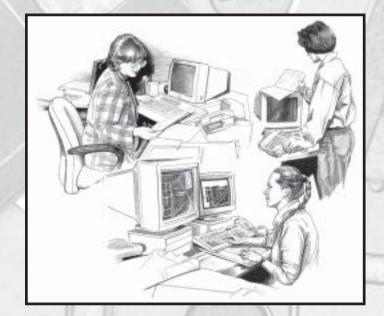
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# Station

Run for Life!

In this game of

tag, participants

assume the role

of food, water,

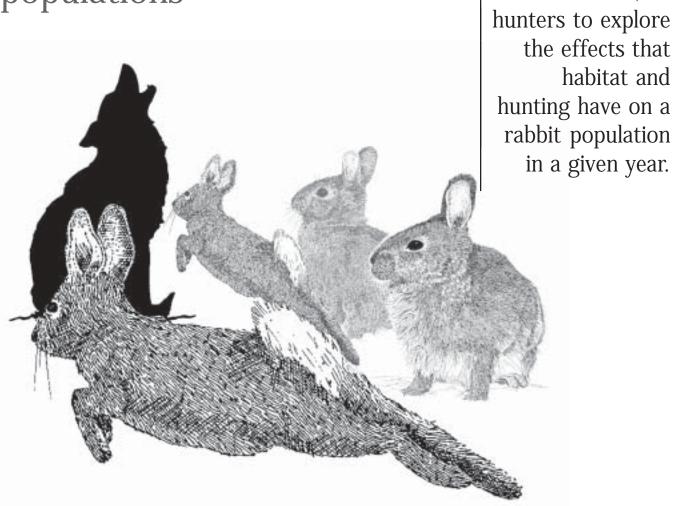
rabbits, or

habitat and

shelter, cottontail

## The Race of Life!

The role of habitat and hunting in controlling populations



Run for Life!

### **Objectives**

### **Participants shall:**

describe what natural elements rabbits and other wildlife need to survive.

describe how habitat can reduce or increase wildlife populations.

state that nature is never in "balance" but is constantly changing.

define and give examples of limiting factors.

describe how hunting can help reduce or increase population.

describe how hunters play a positive role in maintaining healthy wildlife populations and habitats.

### **Equipment**

Whistle or wild animal call Easel and paper or flip chart Marking pens

### **Station Setup**

You will need a large, open, flat field to conduct this activity. Erect the easel or flip chart and record the population level of the "rabbit" at the beginning of each round.

### **Background Information**

All wild animals need habitat. **Habitat** includes the variety of food, water, shelter and space in appropriate order that an animal needs to survive. Habitat needs vary from one type of animal to the next. For instance, wolves prefer vast tracts of undisturbed forest. Chipmunks like to live in woodland burrows under rocks and logs. Deer like to live near the edge of forest and field. Rabbits like thick brush and tangled masses of briars.

Wildlife populations are never the same from year to year. They naturally fluctuate up and down. In 1859, non-native European rabbits were introduced to Australia as potential game animals. However, since their release by well-intentioned hunters, the rabbit's high reproductive potential plus an absence of native predators, caused them to multiply rapidly. Within a few years, their population had soared. The rabbits adapted too well to the Australian outback, living underground in the daytime and coming out to feed at night. They compete with sheep for forage during the dry months of the year when the plants are already stressed due to drought. Today, the estimated 300-500 million rabbits are seem as a



Station 4

Run for Life!

Limiting factors include

weather, food, shelter,

predators and hunters.

threat to the wool industry, both in Australia and New Zealand. Officials estimate that the cost of rabbit damage is in the range of \$87 million per year.

Wild animals also need a certain amount of space. Squirrels and rabbits may need an acre or less to find everything they need to survive. Deer need about one square mile, and wolves require ten square miles or more. All four habitat components—food, water, shelter and space—must be arranged in a certain way for wildlife to survive and to maintain a given population.

When all the components of habitat—food, water, shelter, and space— are in plentiful supply, animals feed and reproduce well. In fact, their rate of population growth increases. Over time, as their population increases, it takes a toll on the habitat. Lots of animals require lots of food and shelter. As the animals feed, they not only reduce the quality of the food left to eat, they also eliminate some of the vegetation that they formerly used for shelter.

So wildlife and the four basic habitat components interact and cause populations to fluctuate. When the habitat is so rich that it can maintain a very high population of game animals, like rabbits, hunters can play an important role in controlling the population. When hunters reduce

the fall population of rabbits, the spring breeding season produces fewer young than if hunters had not reduced the fall population. Hunters help prevent destruction to native vegetation by keeping the rabbit population lower than nature would allow.

A variety of natural factors interact with animal populations to limit the population growth. These are called **limiting factors** for they *limit* the size of a population. Some limiting factors keep a population very low or push it to extinction. Other

limiting factors may hold the population much highe levels.

Disease. predation, weather. accidents. hunting and human-caus habitat alteration a examples of limiting fact All these factors can be demonstrat through the following game.



Run for Life!

### Activity



Hand Signals used in the activity

### **Procedure**

Tell participants that in this game of tag, they will assume the roles of rabbits and habitat.

Ask participants to define habitat. What are its four components of habitat?

Food Water Shelter Space

Ask the players to count off in fours and divide into four equal teams. The 1's will be Rabbits, and the 2's, 3's and 4's will choose to be either Food, Water, or Shelter. These players are referred to as the Habitat Component players.

What things do rabbits need to survive? For the purpose of this game, players should assume that the Rabbits have adequate space. In each round, the Rabbits will be looking for one of the three remaining Habitat Component players to tag. They will be looking for Food to eat, Water to drink, or Shelter in which to hide from weather and predators. One round represents one year.

Have all the Rabbits line up on one end of the playing field. Send the Habitat Component players about 10 to 20 yards away to the other end of the playing field. They should form a line facing the Rabbits.

At the beginning of each round, record the number of Rabbit players on the flip chart or easel. Then ask the Rabbits and the Habitat Component players to turn their backs to one another. While their backs are turned, each Rabbit must decide which Habitat Component it will seek, and each Habitat Component player must decide whether to portray Food, Water, or Shelter for a given round.

If a Rabbit chooses to search for Food, it places both hands over the stomach. All Food players will identify themselves as Food by also holding both hands over the stomach.

If a Rabbit chooses to search for Water, it places the fingers of both hands over the mouth (the fingers form two "Ws"). Likewise, the Water players identify themselves as Water by putting their fingers over their mouths.

Finally, if a Rabbit chooses to search for Shelter in a given round, it places both hands overhead to form a roof. The Shelter players do the same. Once everybody has made an appropriate sign, signal the

Station 4

Run for Life!

beginning of the game by blowing a whistle or wild animal call. Both lines turn to face each other. Still holding their sign, the Rabbits all run to the Habitat Component line looking for a person with a similar sign. If they find a player with the same sign, they tag them and walk back together to the Rabbit line. Those Rabbits that successfully tag a Habitat Component are able to reproduce because their habitat needs have been met. Therefore, those Habitat Components tagged by the Rabbits now become a Rabbit in the next round.

Any Rabbit that fails to find the Habitat Component for which it was searching dies. It becomes part of the Habitat Components in the next round, to provide Food, Water or Shelter for those Rabbits that are still alive.

Remember to record the number of Rabbits at the beginning of each round. Continue playing the game for ten rounds so the Rabbit population trends can be seen.

The Circle of Life includes Death. All animals eventually return to the soil and provide nourishment for the plants which will feed future generations of plant and animal life.



Run for Life!

At the end of ten rounds, discuss the game with the players. What did they experience? Point out how the low population of rabbits at the beginning could easily find enough food, water and shelter to meet its survival needs. As the population expanded over two or three rounds, the habitat was depleted and some Rabbits died and returned to the game as Habitat Component players. This happens in nature.

Now play another ten rounds, but this time introduce two or three players as Small Game Hunters. The number of Hunters and the bag limit you allow should depend on the number of Rabbits at the beginning of each round. Rabbits who are tagged by Hunters should become part of the Habitat Components in the next round. After another ten rounds of this game, discuss the results.

Participants should note that the population fluctuations were not as dramatic, and that there seemed to be a steadier number of Rabbits from round to round. Likewise, the Habitat Components were never depleted.

For each set of ten rounds, plot the Rabbit population on a graph. Use the X-axis to measure years (rounds) and the Y-axis to measure the number of Rabbits. Draw a line connecting the dots for each year's population. Compare the two lines.

Review the concepts of habitat, limiting factors and population dynamics that were illustrated in this activity.



